

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

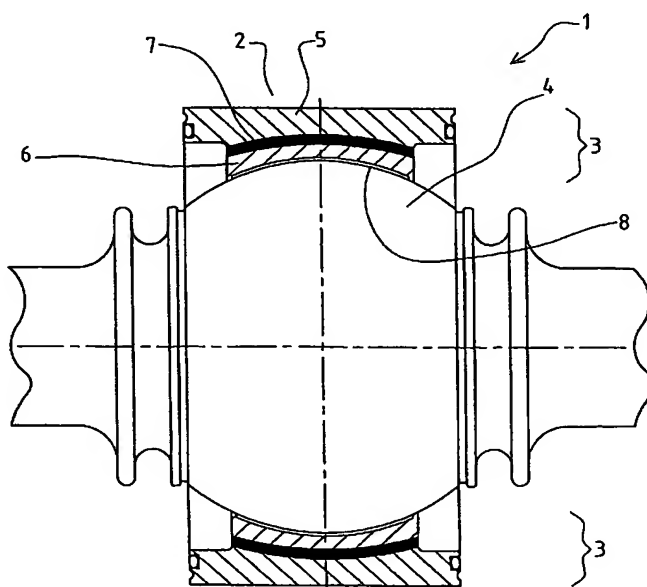
PCT

(10) International Publication Number  
**WO 2004/088155 A1**

- (51) International Patent Classification<sup>7</sup>: **F16C 11/06** (74) Agent: **FORRESTER KETLEY & CO**; Forrester House, 52 Bounds Green Road, London N11 2EY (GB).
- (21) International Application Number: **PCT/GB2004/001295** (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 25 March 2004 (25.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0307425.9 31 March 2003 (31.03.2003) GB
- (71) Applicant (for all designated States except US): **MINEBEA CO. LTD.** [JP/JP]; 4106-73, Oaza Miyota, Miyota-Machi, Kitasaku-gun, Nagano 389-0293 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SMITH, Paul, Raymond** [GB/GB]; NMB-Minebea UK Ltd., Doddington Road, Lincoln LN6 3RA (GB). **GOURDOL, Jerome** [FR/GB]; NMB-Minebea UK Ltd., Doddington Road, Lincoln LN6 3RA (GB).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A SPHERICAL BEARING ARRANGEMENT



(57) Abstract: A spherical bearing arrangement (1) having a bearing housing (3) and a ball (4) located therein, the bearing housing (3) having an outer housing (5), an inner housing (6) and an annular elastomeric portion (7) sandwiched between the housings (5,6) and a method of making the same comprising the steps of: swaging an inner housing (6) onto a ball (4); providing an annular elastomeric portion (7) around an outer surface of the inner housing (6); and swaging an outer housing onto the elastomeric portion (7).



**Published:**

- *with international search report*
- *with amended claims*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*